

MICHIGAN TITLE V MATERNAL AND CHILD HEALTH BLOCK GRANT  
2006 APPLICATION

**II. NEEDS ASSESSMENT**

A. Needs Assessment Process

See the following sections.

B. Five Year Needs Assessment

a. Process for Conducting Needs Assessment

The needs assessment process began with a day and a half training of local public health and other staff on a problem-oriented approach to MCH needs assessment. This training was conducted by Bill Sappenfield, Medical Epidemiologist and Team Leader of the MCH Epidemiology Program of Applied Science Branch of the CDC Division of Reproductive Health, Department of Community Health staff and local public health staff as part of a statewide conference on data and information technology. The intent was to assist local public health with their needs assessment for their catchment area as well as provide input to the state-level needs assessment. Local health departments were not required to submit their needs assessment to the state but were requested to provide information to the Title V program on how their needs assessment was conducted and priorities determined.

In order to assist the local public health professionals with their assessment of needs and development of priorities, Community Health Profiles are made available to local health departments through the Department's website. The profiles include data at the county and some city level. Hard copies of the profiles were also provided to WIC coordinators and CSHCS local staff at their regional meetings.

The MCH Epidemiology Unit within the Bureau of Epidemiology compiled the latest statewide statistics and trends concerning maternal and child health. Other data was compiled from program sources and special project reports. This information was provided to staff and the MCH Priorities Workgroup as part of the background documentation for determining a recommended list of priorities.

Input on the highest priority needs of the three Title V target population groups was solicited from a wide variety of stakeholders. This included local health departments, FQHCs, members of advisory bodies, advocacy groups, parents, other Department programs (Medicaid, Mental Health, Immunizations, Injury Prevention) and other state departments. Comments were also solicited through regional coordinators meetings of WIC and Children's Special Health Care Services. Responses were received from 43 sources, including 11 parents, local health departments, community mental health, the Michigan Inter-tribal Council, Hutzel Women's Hospital and Department staff.

The MCH Priorities Workgroup was then formed to review the comments received and available data and to develop a recommended list of the top ten priorities for MCH. This workgroup included parents and physicians and representatives from Department of Human Services, Department of Education, Medicaid, Children's Mental Health, Chronic Disease and Injury, WIC, Children's Special Health Care Services (including Parent Participation Project), the Division of Family and Community Health, Immunization, MCH Epidemiology, Michigan Primary Care Association, and local health departments. After discussion of the data and the relevant issues, each member of the workgroup voted on their top ten priorities. The votes were tabulated and reported back to the workgroup for confirmation and/or further comment. Those topics receiving the most votes were:

- Medical home for CSHCS
- Child and adolescent obesity
- Maternal depression
- Care coordination and case management for CSHCS
- Breastfeeding
- Unintended pregnancy
- Violence prevention (bullying and child abuse)
- Nutrition and exercise
- Transition to adult services for CSHCS
- Low birth weight
- Develop data resources
- Suicide and depression among children and adolescents
- Teen pregnancy

MCH staff then reviewed the recommendations from the workgroup for consistency with department priorities and comparison with other (non-Title V) initiatives. In the final list of priorities, it was decided to combine some topics recommended by the workgroup into one priority (Medical Home for CSHCS with Care Coordination and Case Management, Child and Adolescent Obesity and Nutrition and Exercise, Unintended and Teen Pregnancy, Suicide and Violence into Teen Suicide Prevention). The discussion by the workgroup around data resource development was very general and resource dependent and was therefore left to be addressed outside the Title V program. Infant mortality and lead poisoning prevention were added to the list of priorities reflecting the department's continuing focus on these issues.

b. Needs Assessment Partnership Building and Collaboration

The development of planned activities to address our ten priorities involves the participation of a broad spectrum of maternal and child health programs, as well as other programs (state, local, private and non-profit) that touch children and families.

The Title V program in Michigan is managed by the Bureau of Family, Maternal and Child Health, consisting of the Divisions of Family and Community Health, WIC and Children's Special Health Care Services. The

Division of Family and Community Health (FCH) manages most of the traditional MCH programs except for Children With Special Health Care Needs. Within our MCH program, broad initiatives like infant mortality reduction, unintended pregnancy reduction and lead poisoning prevention involve many programs and partners on a continuing basis. The infant mortality initiative includes involvement of the Nurse/Family Partnership Projects, MCH HIV/AIDS, SIDS and Other Infant Deaths, Fetal Alcohol Syndrome, Fetal Infant Mortality Review, Maternal Mortality Review, Infant and Maternal Support Services, and Prenatal Smoking Cessation. These programs coordinate and combine their efforts with the Medicaid program, WIC, Newborn Screening Services in the Bureau of Epidemiology, local public health department services, Healthy Start projects and other private and non-profit providers to study the issues impacting infant mortality and make policy adjustments. Newborn Hearing Screening and Hearing and Vision Screening services for pre-school and school-age children are coordinated between the Division of Family and Community Health and Children's Special Health Care Services. Unintended pregnancy reduction involves Family Planning, Michigan Abstinence Partnership, Adolescent and School-based Health Centers, Michigan Model Curriculum and the Medicaid program. The Division also works with the Department of Education on the Youth Risk Behavior Survey (YRBS), Michigan Model Curriculum and Adolescent and School-Based Health Centers and with Education and Mental Health on Early On (Part C of IDEA). The Childhood Lead Poisoning Prevention Program within the Division of Family and Community Health coordinates their efforts to monitor and reduce lead poisoning with the Bureau of Laboratories and the Bureau of Epidemiology to remediate lead hazards and implement provisions of recent legislation concerning establishment of a housing registry and creation of a Lead Commission. The program is also developing a mechanism within the MCIR (Michigan Childhood Immunization Registry) system to prompt providers to check lead levels of children in their care.

The WIC Division partners with Michigan State University Extension and FCH to promote breastfeeding. The WIC program is a key source of referral and screening for immunizations, lead and Maternal/Infant Support Services. WIC and The Division of Chronic Disease and Injury Prevention cooperate on obesity and nutrition initiatives. The WIC program also is a valuable source of data for a large segment of the population of pregnant women and children.

The five Healthy Start programs in Michigan are brought together by FCH into a network to share experiences, develop standardized evaluation criteria and discuss issues of mutual concern. FCH provides data and technical assistance to the programs and receives feedback from the Healthy Start programs on safe sleep, perinatal depression and interconceptional care.

The MCH Program works closely with the Bureau of Epidemiology and the Office of Vital Records and Health Statistics in compiling and analyzing the data for the needs assessment, ongoing monitoring and reporting. This includes implementation of the PRAMS survey.

The Child Death Review Program is a key source of information on childhood death and injury. This program is managed by the Department of Human Services with participation from the Title V program. Local child death review teams report their findings to the state and the findings are summarized and used to inform state level policy.

As described in the previous section, the Title V needs assessment process included input from local health care agencies, the Departments of Education and Human Services and, from within the Department of Community Health, the Epidemiology Services Division, Division of Communicable Disease and Immunization, Division for Vital Records and Health Statistics, Bureau of Chronic Disease and Injury Control, Mental Health Services to Children and Families and the Medical Services Administration. The Division of Vital Records and Health Statistics is the primary data source for the needs assessment and the Division of Epidemiology Services is our primary resource for interpretation of the data.

The major strength of our needs assessment is the partnerships that have been developed across MCH programs and with other programs managed by organizations outside the Bureau of Family, Maternal and Child Health. This has been enhanced by support from the Governor's Office and the Departments of Education, Human Services and Labor and Economic Development of our Early Childhood Comprehensive Systems project.

The major weakness in our needs assessment is our lack of state data on the health status of children 1-22 years of age. We have a few data sources that represent only snapshot data or data for only a small segment of the population, but no routine source of population-based data.

c. Assessment of Needs of the Maternal and Child Health Population Groups

There has been a pattern of slow but steady population growth in Michigan with increased diversity. According to population estimates released by the Census Bureau in December 2003, the state's estimated population was 10,079,985 (see Attachment A) compared to a total population reported in the 1990 Census of 9,295,297, which makes Michigan ranked as the 8<sup>th</sup> in the U.S. Noticeable was the fact that Michigan's estimated net loss of 78,000 residents to other states since the 2000 Census was more than offset by an estimated net gain of 82,000 residents from other countries. Focusing on Detroit changes, between 1990 and 2000, there was an increase in mixed race neighborhoods.

Economically, Michigan has experienced many changes in the past 10 years. From 1992 to 2001, Michigan employment grew by only 16.8%, compared to national employment growth of 22.3%. During this period, employment in the services sector increased by 32.7%, while all other sectors decreased. During the recession years of the early eighties and nineties, Michigan's unemployment rate exceeded the national average by as much as 5.8 percentage points. The state's 2003 annual average unemployment rate rose to 7.0 percent, up from 6.2 percent in 2002. From December 2002 to December 2003, Michigan wage and salary employment declined 79,000 (1.8



percent). Nationally, December 2003 wage and salary employment fell 0.1 percent from a year earlier.

In 2002, Michigan Department of Community Health conducted an analysis of maternal child health indicators for neighborhoods in 16 Michigan cities. Notes from meetings in which public health workers from the 16 cities defined neighborhood boundaries were striking in the frequency with which the underemployment of men of child-bearing age was mentioned as noticeably worsening and problematic to neighborhoods. This issue was again made evident in the National Kids Count Data Book released in June of this year. The Data Book focused on disadvantaged neighborhoods. Indicators of Total poverty, Female Head of Household, School Drop-Outs and Males disconnected from work were used. The Data Book assessment placed 1 in 4 Michigan children in a 'disadvantaged neighborhood', ranking lowest among states in that regard. All these changes had an impact on pregnancy outcomes and thus infant mortality.

The overall pregnancy rate (number of all pregnancies/1,000 women 15-44 years of age) in Michigan increased from 86.2 in 1998 to 88.7 in 2003. However, the fertility rate (measured as the number of live birth / 1,000 women 15-44 years of age) recorded a significant decrease from 1990 (69.1) to 1998 (60.6) followed by small variations between 1998 and 2003, from the lowest of 59.0 in 2002 to the highest of 62.0 in 2000. In 2003 the rate was 61.6, higher than the one recorded in 1998 (60.6). By race, there were differences in fertility rate: while for White women increased from 58.3 in 1998 to 60.0 in 2003, it recorded a decrease in Black women from 69.6 in 1998 to 65.6 in 2003. Fertility rate reflects the changes in the numbers of live births that decreased just by 2% from 1998 (133,649) to 2003 (130,850).

Despite numerous state programs targeted to improve the pregnant women and infants' health outcomes, Michigan remains above the national average when it comes to infant mortality. After a constant decline from 10.7 in 1990 to 8.3 in 1995, infant mortality in Michigan has fluctuated around a rate of 8 until 2002, increasing to 8.5 in 2003. Recent analysis has shown that when stratified by age at death, neonatal mortality (0-28 days) continues to increase from a rate of 5.5 in 2001, to 5.6 in 2002 and 5.9 in 2003. At the same time postneonatal mortality (1month - 1 year) remained almost the same (2.5 in 2001, 2.6 in 2002 and 2003).

The Black/White ratio fluctuated in the last ten years (1994-2003) with a maximum of 3.1 in 2002 and a minimum of 2.6 recorded in 2003 (same ratio of 2.6 was recorded in 1993). The reduction in the Black/White gap in 2003 is due to a decrease of IMR for Blacks (17.4 in 2003 compared to 18.4 in 2002) as well as an increase in Whites (6.6 in 2003 compared to 6.0 in 2002).

A review of ten years of data (1993-2002) using the Perinatal Periods of Risk approach (PPOR) shows that the mortality rate in the Maternal Health/Prematurity (MH/P) group (fetal, neonatal and postneonatal of 500-1,499 grams) remained almost the same in 2002 compared to 1993. This was the only PPOR group with almost no change in this time frame and largely

responsible for the racial disparities between Black and White. Therefore, the perinatal disparities in preterm delivery between black and white births remain a focus of the infant mortality problem in Michigan even though the percent of black infants born prematurely remained the same in 2002 (14.4%) compared to 1993 and a 2% increase was recorded for white infants (9.2 in 2002 compared to 7.2 in 1993).

There are two pathways contributing to infant mortality: birthweight distribution and birthweight-specific mortality. Differentiation between the two pathways is important for the overall analysis and understanding of infant mortality issues because the causes, risk factors and interventions of VLBW births (birthweight distribution) are generally different from those of birthweight-specific mortality. While the former (labeled as VLBW births) generally relates to behavioral, social, health, and economic disparities of the mothers, the latter (perinatal care) generally relates to the perinatal care provided to the mother and infant.

Perinatal regionalization is still the most efficient model for matching medical needs of individual patients to available resources, and to assure prompt access to the level of care appropriate to the degree of risk. In a review of 100 years of neonatal medicine published in 1999, “the deterioration of regionalized perinatal care,” was identified as one of the eight most significant challenges facing neonatal and perinatal medicine as the 20<sup>th</sup> century drew to a close.

While public health has focused recently and will continue to focus on reengineering the existing programs and developing better strategies to address the preconception care (health issues, risk behaviors and social problems), little has been done in Michigan related to evaluation of the system of care for high-risk mothers and infants. Michigan’s regional perinatal health care system has only been evaluated once since its inception. Major changes in the regulation of the health care system occurred in Michigan in 1990s, including the transfer of the Bureau of Health Systems to the Department of Consumer & Industry Service. At the same time funding for Perinatal Centers ended and a lack of information and disconnection among different departments responsible for the health and well being of Michigan’s citizens followed. The Bureau was transferred back to the Department of Community Health effective December 7, 2003.

The important question is: “How did the situation change during the 1990’s impact the pregnancy outcomes and infant mortality in the following years?” This is a very complex task and we are in the process of analyzing the results of the first perinatal survey developed in Michigan in the last decade.

Michigan has the benefit of an Executive Information System/Decision Support System and a data warehouse with multiple years of data from Medicaid, WIC, CSHCS, and Vital Records all on similar platforms. These data sets are uploaded weekly, monthly and annually to be of the greatest benefit for epidemiological studies. The warehouse provides the ability to link and track the impact of participation in MCH programs on a population basis

statewide. For our study of infant mortality the warehouse would facilitate analyzing birth records linked to death records for mothers and infants, newborn screening results linked to birth/death data, birth defects and CSHCS linked to birth/death files. Michigan has also the Hospital Discharge data linked with live births (1995-2002) that has been used for different epidemiological studies related to maternal health conditions and their impact on pregnancy outcomes.

The Michigan Department of Community Health (MDCH) has leadership for the analysis of data related to the measures of perinatal disparity. MDCH has shared this information in many settings, including an Infant Mortality Summit held in 2001 where key leaders from different counties were invited. There were 11 local action groups that met, defining local health issues and recommendations for change. Most of the action groups have continued to meet locally and have begun to implement strategic initiatives. As an example, the city of Detroit convened another local summit on infant mortality in 2002 with excellent participation of key leaders. Saginaw County officials held a similar summit early in 2003, and Berrien County a similar event early in 2002. The original Summit also recognized key local African American leaders that have continued to represent a force for change in their communities.

A good basis of collaboration between health care agencies, education, health care providers, Medicaid, and health care advocates already exists in Michigan, evidenced by the activities discussed earlier. The state team will use this opportunity to engage other players in needed change measures. This type of activity has been successful in the past in such Medicaid policy change as providing coverage for otherwise non-Medicaid eligible, low-income pregnant women, thereby facilitating access to prenatal care.

Four Healthy Start projects in Michigan are addressing black infant mortality in their communities through case management, enhanced clinical services, transportation services, risk prevention activities, FIMR teams, training and education programs, programs for adolescents, and an innovative inter-conceptional project. These sites represent four of the highest Black infant mortality rates in the state. Data analysis from these projects is designed to help understand the gaps in service for high-risk families.

There are currently 13 Fetal-Infant Mortality Review (FIMR) teams operating in both rural and urban areas of the state, and data is helping to inform statewide projects of the particular local issues that pregnant women face. FIMR is a process of identification and examination of factors that contribute to fetal and infant death through the systematic evaluation of individual cases. FIMR complements other studies of infant death but uses an approach that is community-based and designed to bring together local health providers, consumers, advocates and leaders.

Along with infant mortality, maternal mortality is one of the basic health indicators that reflect a nation's health status. The goal of the Michigan Maternal Mortality Surveillance (MMMS) system is to track, review and better

understand the causes of maternal death as well as the context in which they happened. Each death is a sentinel event and thus every death counts and every death should be counted. Many of these deaths could have been prevented, either through changes in the health and behaviors of women before pregnancy, or the timing of conception, or by improved access to health care and social services as well as through the quality of care received. The ultimate and most important goal is to decrease such deaths in the future through appropriate sharing of information and recommendations from the findings. Given the voluntary reporting status in Michigan, efforts have been made to continue improving case ascertainment methods. A methodology of using the newly created linked file of the death certificates of women of reproductive age with live birth records followed by the matching process with the hospital reports was initiated by Michigan Department of Community Health during 2004. As a result, 84 additional cases not previously reported for the years of 2001, 2002, and 2003 were identified.

Total Identified Cases		Most Prevalent Causes of Maternal Deaths: 1999-2003	
<u>Year</u>	<u>Cases</u>		
1999	74	1.	Motor vehicle accidents: 15.9%
2000	61	2.	Cardiac diseases: 10.6%
2001	70	3.	Assaults: 10.3%
2002	66	4.	Malignant neoplasm: 9.4%
2003	69	5.	Obstetric acute complications (e.g. shock, amniotic embolism): 4.7%
		6.	Intentional self-harm: 4.4%
		7.	Mental and behavioral disorders (drug overdose): 3.2%
		8.	Hypertension during pregnancy (all stages): 3.2%
		9.	Accidental poisoning: 3.2%
		10.	Intracerebral hemorrhage: 2.6%.

Preterm delivery increased in Michigan in recent years and there is a need for additional programmatic efforts to address and develop targeted prevention activities. The perinatal survey mentioned above will be a good source of information to better understand the health care system issues associated with poor pregnancy outcomes such as preterm births. The prevalence of the overall preterm births increased from 11.0 in 1998 to 11.2 in 2003. When stratified by plurality, the increase was in the multiple births, from 51.9% being born as preterm in 1998 to 54.5% in 2003. The percent of multiple births of all live births also recorded an increase in 2003 to 3.7% compared to 2.9% in 1998, explaining thus the increase in preterm births in this group. In the population of singleton births, the percent of preterm recorded small fluctuations between 1998 (9.6%) and 2003 (9.5%), with the lowest of 9.3% in 1999 and the highest of 9.7% in 2001 and 2002.

When analyzed by race, the Black/White ratio for overall preterm births was 1.7 in 1998 and 1.6 in 2003. This was mainly due to the change in preterm to singletons (ratio of 1.8 in 1998 and 1.7 in 2003), in multiple being the same (ratio of 1.1% in 1998 and 1.1 in 2003). The increase in multiple births in 2003 compared to 1998 was smaller in Black women (from 3.5% to 3.7%) than in White women (from 3.2% to 3.7%) but reached the same percent of all live births to the corresponding race group.

Unintended pregnancy accounts for about half of all pregnancies in the United States, and almost a third of those resulting in live births. Women's attitudes toward their pregnancies are currently measured through self-reported responses to survey questionnaires, although these have recognized limitations. The first questions related to assessment of pregnancy intention were incorporated into the National Survey of Family Growth (NSFG) in 1973 and a derivative of these questions continues to be used in the Pregnancy Risk Assessment Monitoring System (PRAMS) questionnaire. According to the 1995 National Survey of Family Growth, 49% of all pregnancies in the United States and 31% of pregnancies resulting in a live birth are unintended. These pregnancies are associated with adverse outcomes. These include inadequate prenatal care, low birth weight, infant mortality, child abuse and neglect, and economic hardship and lower educational attainment of both parents.

The Pregnancy Risk Assessment Monitoring System (PRAMS), a population-based survey, CDC initiative to reduce infant mortality and low birth weight, is a vital source of information on maternal behaviors during pregnancy. In fact, PRAMS is Michigan's only source of data on unintended live births. It is a combination mail/telephone survey designed to monitor selected self-reported maternal behaviors and experiences that occur before and during pregnancy, and early postpartum periods of women who delivered a live infant in Michigan. Information regarding the health of the infant is also collected for analysis. Annually, over 2,000 mothers are selected at random to participate from a frame of eligible birth certificates. Women who delivered a low-birth weight infant were oversampled in order to ensure adequate representation. The results are weighted to represent the entire cohort of women who delivered during that time frame.

The percent of unintended pregnancies remained around 40% in Michigan in the last ten years. Over half the women who delivered in 2002 (56.7%) had an intended pregnancy while the remaining deliveries (40.6% of total) were unintentional. Unintended pregnancies are highest among socio-economically vulnerable groups: women under the age of 20, uninsured, low income (Medicaid participation as a proxy), and racial/ethnic minorities. The prevalence of unintended pregnancies was inversely correlated with maternal age, education, and household income. Women who were less than 18 years old had unintended pregnancy prevalence more than three times that of women over 40 years of age (77.4% vs. 22.2%, respectively). When stratified by race/ethnicity the prevalence of unintended pregnancies was higher than intended pregnancies among non-Hispanic Blacks (64.9%) and slightly higher in Hispanics (51.7%).

Over 50% of women experiencing an unintended pregnancy indicated using a contraceptive method at the time they became pregnant. The most commonly utilized contraceptive method reported were condoms, withdrawal, birth control pills, and other methods. This suggests that women are not informed or misunderstand information regarding the proper use of effective methods to prevent pregnancy; and that contraceptive services may not be available to the women who need them most.

Numerous studies have validated both the immediate and long-term effects of breastfeeding on mother and the infant. The Pediatric Nutrition Surveillance System (PedNSS) collects information on both breastfeeding initiation as well as breastfeeding duration for children under the age of two years old. In 2002 the national PedNSS prevalence of 'ever breastfed' was 52.5%. In Michigan this prevalence was less than half (48.0). When stratified by race/ethnicity the prevalence of ever breastfed was highest among Hispanics (63.4%), followed by Asian/Pacific Islanders (56.4%) and non-Hispanic Whites (51.8%). The group with the lowest prevalence of infants ever breastfed was non-Hispanic Blacks (34.3%).

Another source of information for breastfeeding is PRAMS. The analysis of 2002 PRAMS data showed that of the women who delivered a live-born infant, 56.4% of the women planned on breastfeeding their infant, 15.9% thought that they may breastfeed, and 23.1% planned on not breastfeeding their infant. At the time surveyed, 33.3% of women were still breastfeeding their infant. Roughly one-third of mothers (32.5%) breastfed their infants for longer than a week, but had finished by the time they were surveyed (approximately four to six months postpartum). In addition, 3.6% breastfed for less than a week and 30.8% of women did not breastfeed.

The analysis by different maternal characteristics, led us to conclude that prenatal care providers and health care professionals should continue to engage all pregnant mothers with a discussion of the benefits of breastfeeding, and should target women who are black and non-Hispanic, as well as women who are less than twenty, over the age of forty, and women without high school diplomas. Lactation consultants ought to be made available to all new mothers in the hospital to give assistance and information to help them through the first crucial days.

One in five women who gave birth thought they might breastfeed, but were undecided. Breastfeeding conversations throughout pregnancy, and exposure to breastfeeding in prenatal groups and other venues may help gain community acceptance for breastfeeding. Communities can promote breastfeeding-friendly workplaces, parks day-care centers, and other facilities to promote the practice.

Postpartum care which supports breastfeeding should continue after the woman returns home from the hospital so that the most common barriers for breastfeeding can be addressed such as a mother thinking she was not producing enough milk (31.7%), the infant had difficulty nursing (24.4%), and the belief that breast milk alone did not satisfy the infant (32.5%).

The overall death rate for children under one year of age has changed very little since 1998. Black males have the highest death rate at more than twice the overall rate. Black females have the second highest rate. The leading causes of death for infants, overall and for both black and white infants, are conditions originating in the perinatal period, congenital malformations, SIDS, and unintentional injuries.

The rate of death for children 1-4 years of age has decreased by approximately 22% from 1998 to 2002. The leading causes of death for this age group are unintentional injuries, homicide, congenital malformations, cancer and diseases of the heart. The average rate of deaths due to homicide is higher for males than females and highest for black males.

For children 5-14 years of age, the leading causes of death are accidents, cancer, congenital malformations, homicide and suicide. Among black males and females, chronic obstructive pulmonary diseases and allied conditions is also a leading cause of death.

Among the 15-24 year age group, accidents, homicide, suicide, cancer and diseases of the heart are the leading causes of death. Homicide is the leading cause of death for black males and females. White males are more likely to commit suicide than females or black males.

The death rate due to unintentional injuries (accidents) among children 14 and younger declined by 22% from 2000 to 2004 and the death rate due to motor vehicle accidents for the same age group and period of time declined by 34%. Unintentional injuries accounted for 15% of all causes of death for children under 14 years of age. 35% of unintentional injury deaths were due to motor vehicle crashes.

Over 215,000 children in Michigan have asthma. Although asthma hospitalization rates for children are improving, asthma was the leading cause of preventable hospitalizations in children less than 18 years of age. Hospitalization rates are highest in young children, black residents and in urban areas. Whether asthma is higher in males than females depends upon age. In 2001, the asthma hospitalization rate for boys age 1-14 years was 61% higher than the rate for girls. After age 15, the gender difference in asthma hospitalization rates shift and rates are higher among females than males.

Dental caries is considered the single most common chronic childhood disease. According to the Michigan Oral Data (MOD) System findings, approximately one in six underserved children had evidence of early childhood caries. The rate of caries experience in permanent teeth is dramatically higher among underserved adolescents at 82%, with 54.6% having untreated decay.

According to the Youth Risk Behavior Survey 2001, 13% of high school students in Michigan were at risk for becoming overweight, compared to 14% nationally; 11% were overweight, compared to 10% nationally; and 79% ate less than five servings of fruits and vegetables per day, compared to 79%

nationally. Official statewide data for younger Michigan children are not available, but in the samples collected in recent years and in high school students studied in the Youth Risk Behavior Survey, Michigan children are similar to children across the nation.

To provide estimates of the prevalence of CSHCN was one of the main goals of the National Survey of CSHCN. The National Survey of Children with Special Health Care needs was conducted as a module of the State and Local Area Integrated Telephone Survey (SLAITS). The SLAITS program sponsored by the Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics (NCHS) is a broad-based, ongoing surveillance system available at the State and local levels for tracking and monitoring the health and well-being of children and adults. SLAITS uses the same sampling frame as the National Immunization Survey (NIS) which is conducted jointly by NCHS and CDC National Immunization program.

Based on the data analysis of the 2001 National Survey of Children with Special Health Care Needs, an estimated 14 percent of children (360,837 children) in Michigan met this definition. However, not all children identified as CSHCN under this definition participate in Michigan's state program. An analysis of the Michigan CSHCS program data conducted by the MCH Epidemiology Unit at Michigan Department of Community Health (MDCH) showed that an average of 34,506 were enrolled each year. That translates into approximately one in ten of children identified as having special needs being enrolled in the state program. The same analysis evaluated the health conditions that children were enrolled for in Michigan CSHCS program. Many of the morbidities that Michigan resident's children experienced and needed special care for might be associated with premature births (born before 37 weeks gestation). These findings led to further evaluation of preterm births in Michigan and their contribution to the high number of children with special care needs.

- d. Examine MCH Program Capacity by Pyramid Levels (FCH and CSHCS)
  - i. Direct Health Care Services

The Prenatal Care Demonstration Project (Preconception Home Visiting) is designed to facilitate healthy pregnancy outcomes in high-risk communities in Michigan. The project is available for three years to communities demonstrating need. For FY2004, the department began funding one project that provides a bereavement and preconception home visiting protocol to African-American families who have had a fetal or infant loss. The project seeks to intervene with women at the time of a sentinel event when there is a greater likelihood of changing risk behavior. It uses the PPOR framework that suggests interventions must be done prior to pregnancy to reduce the risk of very low birthweight and fetal loss.

One local community with significant numbers of black babies born prematurely and with low birth weight was chosen to pilot this project.



Families that have lost a baby are identified through hospital and health department sources. The project coordinator invites families to participate in the project and provides an incentive. A grief counselor begins the intervention with specific crisis grief management services. A nurse home visitor completes an initial assessment in the home and offers a protocol of visits for a period of up to 2 years. After assessing strengths and weaknesses related to the child loss and anticipation of another pregnancy a calendar of visits and a protocol of intervention will be determined and implemented with the approval of the family. If the mother becomes pregnant, linkages will be made with prenatal support services.

The project will intervene with the following preconception risk areas:

- grief
- birth control
- chronic medical conditions
- social support
- drug use
- exercise
- smoking
- cultural beliefs
- nutrition
- financial factors
- genetic risks
- paternal factors
- teratogenic exposure

The project will provide information on: 1) pregnancy interval, 2) birthweight, 3) gestational age, 4) maternal complications, and 5) infant health.

Michigan Department of Community Health is the Ryan White Title IV grantee in Michigan. The Maternal and Child HIV/AIDS Program administers the Ryan White Title IV funds. The Program supports services for children, youth, women, and families living with HIV. These services are designed to be comprehensive, community based, culturally competent, and family centered. The Title IV Program, network of providers are located in Detroit. However, Michigan's Title IV program targets the Detroit Eligible Metropolitan Area (EMA), which includes six counties in Southeastern Michigan. Funded agencies provide primary and specialty medical care, psychological services, logistical support and coordination, and outreach and case management. Title IV employs family case managers and family advocates who serve to link families with needed care across service systems. The program works to assure HIV positive women have access to medical therapies that reduce transmission of HIV to their newborn(s), as well as access to clinical trials that provide them state-of-the-art treatment. The program further assures HIV exposed and HIV positive children have access to available clinical trials. HIV

positive women are also offered opportunities to develop and use advocacy and leadership skills in the area of policy and program development for the HIV service system.

In calendar year 2004, a total of 1,871 clients received Title IV services, including: 1,562 females (83.5%), 308 males (16.5%), and 1 transgendered (0.1%) client. The data further shows 1,018 adult women, 19 adult men, 72 infants, 183 children, and 579 youth received services. These numbers reflect 967 (52%) clients who were positive, and 904 (48%) who were affected. The demographics of the target population that Title IV services are: African American 1,611 (86%), Caucasian 95 (5%), Latino 47 (2.5%), other races 8 (.5%), more than one race 18 (1%), and race unknown 36 (2%). In 2005 and 2006, we expect to service the same number as seen in calendar 2004.

The Maternal and Child HIV/AIDS Program faces the following challenges: ensuring all pregnant women are offered HIV testing in compliance with Michigan law to prevent Mother to Child Transmission (MTCT); identifying the growing number of HIV positive youth and connecting them to health care and mental health services; and providing adequate mental health services to the growing number of women that need those services.

The Michigan Department of Community Health (MDCH) assures that family planning services are provided in all 83 Michigan counties. The MDCH Family Program currently has 50 delegate agencies with 139 clinic sites through out the state. The delegate agencies funded by MDCH include 37 local health departments, six Planned Parenthood affiliates, three hospitals, two private non-profit family planning organizations and two Federally Qualified Health Centers. These agencies deliver family planning services either directly on-site or through a sub-contractual agreement with a community-based agency (one county sub contracts with another hospital). For services that are not provided by the delegate agency, referrals are made to other providers. Services include general health assessments, screenings, contraception, pregnancy detection, primary infertility services, client and community education, and follow-up and referral for problems for both females and males. Program services are available to all upon request. Clients below 100% of the poverty level are not charged for services. Those between poverty level (100%) and 250% of the poverty level are assessed fees based on income and family size. Those above 250% of poverty are assessed full fees. No one is denied services because of inability to pay. In calendar year 2004, 174,654 women and 5,585 men for a total of 180,239 individuals received services from the program.

The Michigan Public Health Code, P. A. 368 of 1978 as amended, Section 333.9131 (2000), requires that local health departments shall deliver family planning services whenever possible. If there is an unmet need for service in any county, and the local health department

is unable to provide this service efficiently or in a cost-effective manner, MDCH contracts with other providers.

The Department has had a long-standing goal of making family planning a basic health service in Michigan. This means that any person who wants or needs family planning services could receive them regardless of their economic status. In moving towards this goal the state of Michigan submitted an 1115 Medicaid waiver application in the Fall of 2004. Michigan's family planning waiver has received the support of the Michigan Legislature with an appropriation of State funds allocated to support family planning services.

Through this demonstration project, MDCH would offer eligibility for Medicaid family planning services to women of childbearing age, 19 through 44, who are not currently covered by Medicaid, do not have family planning benefits through private insurance and who have family income at or below 185 percent of the FPL. Coverage would be limited to women who reside in Michigan and meet Medicaid citizenship requirements. It is estimated that more than 200,000 women currently meet this criteria. It is recognized that women are capable of bearing children before the age of 19. This age was chosen for the demonstration project because publicly funded medical benefits, including family planning services, are available to children under the age of 19 through Michigan's Medicaid program and its State Children's Health Insurance Program (SCHIP), the latter called MICHild. Michigan has chosen to use age 44 as the upper age limit for this waiver because it is the age most generally recognized and measured in family planning statistics and literature. Approval of a waiver under the authority of Section 1115(a) and implementation of this proposed research and demonstration project would not only decrease the number of unintended pregnancies in the targeted population and reduce the number of Medicaid covered births and related expenditures, but such a program would also contribute to an improvement in the health of Michigan women and their children.

The Child & Adolescent Health Center program goal is to achieve the best possible physical, intellectual, and emotional status of children and adolescents by providing services that are high quality, accessible, and acceptable. To this end, the Child & Adolescent Health Center Program provides base funding support to 33 clinical child & adolescent health center (CAHC) and 12 non-clinical adolescent health center model health delivery sites throughout Michigan.

The clinical health center model, through either school-based or school-linked health centers, provides on-site primary health care, psycho-social services, health promotion/disease prevention education, and referral services to children ages 5-10 or to youth 10-21 years of age. The non-clinical adolescent health center model focuses on limited clinical services, case finding, screening, health education and referral for primary and other needed health services.

for the adolescent population. The target population for both models is uninsured, under insured and publicly insured children and youth. Agencies involved in delivering these CAHC services include local health departments, hospitals, federally qualified health centers, school districts, and community-based organizations.

High quality, accessible and acceptable health services are key to this program's success. School based/linked health centers provide services either on school property, where children and youth spend the majority of their day or in a community based location where easy access is assured. Therefore, access is *not* a barrier to kids receiving these critical medical services. Parents do not have to take time off work to take their child to the doctor and kids do not have to leave school to go to the doctor. School-based health centers increase the amount of in-seat time that kids are in school and learning. Because CAHCs are tailored to meet the specific needs of either teens or younger children (each center must focus on only one of the two target age groups), they are viewed as acceptable by the population in which they target. Health education material is tailored to their literacy level, staff are hired who want to work with children/adolescents, and the environment is teen-friendly, in that it reflects the culture of this population.

The CAHC program expanded this year due to its ability to secure federal Medicaid match for the \$3.74 million State School Aid dollars that support these critical services. In December 2004, the Departments of Community Health and Education issued a competitive request for proposals for clinical school based/linked health centers, non-clinical centers, and planning grants to communities interested in exploring the feasibility of starting a clinical center. In response to the RFP, 97 communities throughout Michigan submitted grant proposals. The two State Departments issued 68 funding awards: 33 clinical centers; 12 non-clinical centers; and 23 planning grants. There is funding to support 12 of the 23 planning grants to move forward in starting a school based/linked health center. This expansion translates into thousands more children and youth in Michigan receiving primary health and support services through this program.

*Emerging Issues:* The two greatest unmet health care needs of at-risk adolescents are affordable, accessible mental health services/treatment and dental care services. MDCH's CAHCs continue to struggle to find mental health and dental health providers in their communities in which to refer these uninsured and publicly insured children/youth. When a provider is identified, there is often either a significant waiting list to get seen or only those cases deemed "emergencies" are able to access the services.

*Staffing Shortfalls:* There are some pockets of the state, particularly in our urban areas, that experience a shortfall of licensed Nurse Practitioners available to work in school based/linked health centers.

The State's minimum staffing requirements call for 30 hours of clinical services provided weekly by a Nurse Practitioner, Physician Assistant, or Physician. Approximately 95% of the State funded centers prefer utilizing a Nurse Practitioner in this capacity. In Benton Harbor, Michigan, a NP position was posted for over two years before finding an acceptable candidate to work in their High School Health Center.

*Linkages:* All of the state-funded CAHCs are required to have written referral agreements with community providers/agencies to help streamline the referral process. However, finding mental health providers and dental care providers that are able and willing to see this population is an ongoing challenge. The urban areas tend to have more resources in terms of dental care, because of the availability of mobile dental units. But, even with mobile units, their focus is mostly limited to preventive care and basic treatment. There continues to be a dearth of specialized dental services available to uninsured or publicly insured children and adolescents.

The Oral Health Program provides consultation, technical assistance and statewide coordination for oral health programs to local health departments and other community agencies. Thirteen of the local health departments (29%) provide dental services, well below the Healthy People 2010 goal of 75%. The Michigan Department of Community Health provides funding to nine of the local health departments. Two of the local health departments receive the MCH Block Grant allotment funding for oral health and seven of the departments are funded through State General Appropriations. Current contracts do not stipulate the need to address the MCH Block directive of population-based sealant programs. However, initial stages of discussion have been held to redistribute the MCH Block funding from providing only community dental care services to two local health departments to the establishment of a population-based sealant program in Michigan. This would align the Oral Health Program in a better position to meet the Healthy People 2010 objectives, the MCH Block Funding requirements, and provide a stronger oral health prevention program for the State. Other programs are funded locally, through fee-for-service collection, Medicaid (adult emergency services and children), Healthy Kids Dental, private foundation funds, and federal funding (HIS, primary care and migrant health). A network of volunteer dentists provides dental care to persons who are mentally and physically handicapped, who are medically compromised or who are elderly, through the Donated Dental Services Program, supported the tobacco settlement funding from the Healthy Michigan Fund. The department provides dental services to the developmentally disabled population who are not eligible for Medicaid, cannot access a Medicaid provider, do not have other dental coverage, and cannot afford dental care. Services provided are limited to the treatment of those conditions, which would lead to generalized disease due to infection or improper nutrition.

Medical care and treatment for children with special health care needs includes a wide range of services such as physician specialist care, hospitalization, pharmaceuticals, special therapies and durable medical equipment, home health nursing, and orthotics/prosthetics. In addition to making payment for these services, CSHCS assures quality in the services provided. Physicians, hospitals, and clinics must meet established criteria in order to qualify as CSHCS “approved” providers. The criteria focus on the demonstration of expertise and willingness to provide pediatric specialty services. Along with the approval of providers, CSHCS authorizes specific providers for each child, so that specialty expertise is appropriate for the child’s condition. Provider reimbursement claim processing policies and rates are the same for both CSHCS and Medicaid. The Michigan Public Health Code, Public Act 368 of 1978 as amended, defines a CSHCS-eligible person as someone under age 21”...whose activity is or may become so restricted by disease or deformity as to reduce the individual’s normal capacity for education and self-support.” Persons over age 21 with cystic fibrosis or hereditary coagulation defects (e.g., hemophilia) also may be eligible for services. CSHCS covers chronic physical conditions that require care by medical or surgical specialists. The program also evaluates severity, chronicity and the need to be seen at least once annually by an appropriate pediatric subspecialist in making a medical eligibility determination.

There are no fees assessed for families whose income is at or below 250% of the federal poverty level or for children adopted with a qualifying pre-existing condition. All other families are required to have their income evaluated. Families can choose to participate in the program, subject to a payment agreement established on a sliding-fee scale.

CSHCS is a statewide program, although certain program components may not be located in every county. For example, family support coordinators may service more than one county but all counties may not be covered, and children’s multidisciplinary clinics are associated with tertiary care centers.

Private Duty Nursing (PDN) is designed to address the needs of medically fragile, technology-dependent children and their families by arranging for and reimbursing hourly nursing services provided in the home setting, rather than keeping children requiring skilled nursing interventions in a hospital or other institutional setting. It also provides for specialized community-based care coordination. Children with PDN coverage benefit from case management assistance. Formal policy was established for case management. PDN was added to the Medicaid State Plan and implemented February 2002. The beneficiary must have Medicaid coverage to be eligible, and may also have CSHCS or other program coverage. Many of these children are eligible to qualify for Medicaid at home as a family-of-one due to their medical circumstance. CSHCS assists in determining PDN eligibility

when the child has CSHCS, and in acquiring case management services.

All children eligible for SSI are also eligible for Medicaid in Michigan. Therefore rehabilitation services are typically provided under Title XIX, often in the school under Medicaid-Reimbursed School-Based Services. Michigan Medicaid has a very extensive benefit package, and the need for further coverage would be rare. CSHCS provides medical services as needed based upon the CSHCS qualifying diagnosis. Therefore, CSHCS would provide medically necessary services not covered under Title XIX for children enrolled in CSHCS as the circumstance arises.

ii. Enabling Services

Nurse Family Partnership: Michigan continues to experience an embarrassing and unacceptable infant mortality disparity between black versus white (nearly 3 to 1) that is significantly more than the nations disparity. Infant mortality is the ultimate negative outcome for infants and is viewed as a proxy indicator of the health status of African American infants. To address this issue, Michigan has implemented some targeted efforts to selected communities and populations. The Nurse Family Partnership (NFP) is one of these targeted efforts. Four communities with significant disparity were selected through a request for proposal. These communities had other related factors such as having at least 100 African American first time, low-income births, lower high school completion rates, a significant number of young children living in poverty, etc.

The Nurse Family Partnership is a nurse home visiting program for first time, low-income pregnant women that has evidence of success addressing the family needs over approximately two and a half years. This service model has shown improved family outcomes, strengthening the environments of infants and young children, ultimately improving infant survival and young children's health. Services are provided through a team (four nurses and a part-time nurse supervisor). Each nurse maintains a caseload of 25 families. Nurses follow program guidelines that focus on the mother's personal health, quality of care giving for the child, and parents' own life-course development. Nurses involve the mother's support system including family members, fathers when appropriate, and friends, and they help families use other health and human services they may need.

The NFP focuses on helping families to improve skills in the areas of maternal and child physical health; home and neighborhood environment and safety; family and friend support; parents learning to care for their children; and parental efforts to become economically self-sufficient through pregnancy planning, education and employment. Nurse home visitors work intensively with the pregnant women and their families to become confident and skillful in

addressing the five areas of functioning that can shape parents' abilities to care for themselves and their children for years after the program ends.

The Nurse Family Partnership program has additional characteristics that strengthen the program such as a strong commitment to community involvement and support; a client information system (CIS) designed to collect real time data and provide ongoing program evaluations and an intensive nurse training provided prior to service implementation, four months after the program begins, and as the children in the program approach one year of age. Additional nurse training includes Nursing Child Assessment Satellite Training (NCAST) and Partners in Parenting Education (PIPE).

A new Infant Mortality Initiative was launched in November 2004 to more comprehensively address the continuing disparity in African American and white rates of infant death. With a boost from Healthy Michigan funding of \$1 million a strategic planning session was held with partners from eleven urban communities in the state that capture 97% of the African American deaths and other stakeholders. Using input from this meeting a work plan was created that sets out objectives for meeting the goals of: 1) improving maternal preconceptional health, 2) improving access to healthcare for mothers and infants, 3) eliminating the racial disparity in infant mortality rates, 4) expanding support and intervention services to at-risk mothers and their infants, and 5) improving mother and infant nutrition and safety in their environments.

Each of the eleven communities received initial start-up funding for FY2005 with the goal of forming or strengthening a coalition of local stakeholders. Each coalition will use a set of state defined objectives to give direction to their efforts but will study the local health systems issues and determine their local plan. Two state employees will be hired to manage existing programs, and to allow partnership with universities as well as the development of innovative strategies. Other consultation will provide technical assistance for local coalitions to study their local health delivery systems and to learn about the stories of local consumers.

The Michigan Prenatal Smoking Cessation Program's goals are to assist in reducing low birth weight rates and favorably impacting infant mortality, morbidity, and other undesirable pregnancy outcomes associated with smoking and second-hand smoke. The Prenatal Smoking Cessation (PSC) program is designed to train and support prenatal care provider and staff who work with pregnant smokers. The PSC intervention model, "Smoke Free for Baby and Me" (SFBM), is designed to assess the stage of readiness to quit smoking and deliver positive, clear, concise, and consistent messages directed to each woman's stage of readiness to quit. This intervention model can be easily integrated into other medical, health and support services.



Upon completion of an assessment and identification of the stage of readiness to quit smoking, a three to five minute one-on-one counseling is conducted as part of the services. Intervention messages in brochure form is reviewed with and given to the client. Funds are spent on three trainings for prenatal care providers each year as well as pamphlets, booklets, mailing, brochures and other educational materials. Professionals trained in the Smoke Free for Baby and Me (SFBM) curriculum provide one on one counseling to pregnant women in the home or other settings utilizing the 5 A's counseling technique.

Lead poisoning prevention in young children is a stated priority of the Governor, and has held that status since her inauguration in 2002. At that time, Governor Jennifer M. Granholm also named Kimberly Dawn Wisdom, M.D. as Surgeon General of Michigan and charged her with several priorities including addressing childhood lead poisoning. Increase in testing for blood lead status in children is a state Maternal and Child Health objective.

There have been several activities in the past two years focused on increasing the level of blood lead testing among young children that have had significant impacts on the numbers of children tested, including: A letter from the Surgeon General to all primary pediatric care providers stressing the effects of lead on the growing brain and the need to know that child's blood lead status; the Michigan Childhood Immunization Registry (MCIR) has instituted a "pop-up" screen alerting providers of the need to test a child they are seeing that day; development of an agreement between Medicaid and the Bureau of Family, Maternal and Child Health (BFMCH) to pay local health departments (LHD) to provide lead testing in WIC and other LHD programs; and, the development of the Governor's *Final Report of the Task Force to Eliminate Childhood Lead Poisoning*.

This Task Force and the six subcommittees that addressed the issues related to Compliance and Enforcement, Education, Health, Housing, Legislation and Policy and Funding. Over one hundred strategies and recommendations were developed and serve as the basis for increased focus on identifying young children with lead burdens and the prevention of lead poisoning among children residing in high-risk areas throughout the state. The full text of the report can be found at [www.michigan.gov/leadsafe](http://www.michigan.gov/leadsafe).

The Task Force identified seven priority "first steps" to eliminate childhood lead poisoning and recommended an allocation of \$3.78 million to begin to address these seven priorities. While the administration was unable to allocate the total requested, \$1 million was earmarked in the 2004-05 budget to begin work on the priorities.

The Task Force report also spawned several pieces of legislation signed by the Governor during 2004 to:

- Mandate electronic reporting of blood lead analyses by 10/1/2005
- Require 80% testing of children enrolled in Medicaid by 10/1/2007
- Develop a registry of lead-safe housing
- Enact penalties for rental property owners who knowingly rent dwellings with lead hazards to families with young children
- Establish a Lead Commission to evaluate the progress of state agencies toward elimination of lead poisoning in young children

Medicaid and MIChild both cover lead testing, but many of the private insurance carriers do not. The intent of the Medicaid agreement with BFMCH was to eliminate missed opportunities for testing among the highest risk population, and resulted in a 25% increase between 2003 and 2004. More than fifteen percent (15.4%) of all children under the age of six years were tested during 2004, with a total of 125,399 children tested, a more than 25,200 increase in tests from 2003.

Cultural acceptability has been carefully addressed especially in areas of the state with high percentages of African-American and Hispanic populations. Informational materials are available in English, Spanish and Arabic, and public awareness campaigns are focused on specific populations with specific messages. Primary care services are widely available, 95% of children enrolled in Medicaid are in Managed Health Plans and the remainder in fee-for-service programs. Medicaid and BFMCH have worked very closely together for the past several years to increase the numbers of children blood lead tested, and Medicaid has developed a monthly report regarding testing. The report includes information that if every child who had an encounter with a Medicaid provider during the past year had been tested, the percentage of children tested would already exceed 80%.

Prevention activities have received greater attention during the past two years as Regional Case Managers were identified and funded to provide oversight of the follow-up of all children with blood lead levels equal to or greater than 20 ug/dL, and to develop regional plans to address prevention activities. Two counties have had active primary prevention programs for several years, and have provided interim controls of lead hazards for large numbers of families, while other high-risk counties have begun to provide door-to-door education and services in their highest risk neighborhoods.

Two areas of the state provide highly specialized care for children with elevated blood lead levels. Children's Hospital of Michigan in Detroit and Spectrum Health in Grand Rapids have pediatric and hematology specialists who guide the care of children undergoing chelation and provide consultation to providers with less experience in the care of significantly poisoned children. Physicians in Detroit, Grand Rapids, Ann Arbor, and Saginaw form the core of the Pediatric Medical

Management subcommittee of the combined Childhood Lead Poisoning Prevention Program (CLPPP) and Lead Hazard Remediation Program (LHRP) Advisory Committee and address policy issues related to treatment and provide consultation to other less experienced providers.

There are still significant numbers of children at high-risk for lead poisoning that have not yet been tested, and there are significant numbers of providers who still do not either know or appreciate the serious effects of lead on the growing brain. The public awareness campaigns that have been instituted to date have reached numbers of both families and providers, but a major focus for 2004-05 is the development of a "branded" public awareness campaign focused most specifically on assisting parents to understand the importance of knowing their child's blood lead level and being assertive consumers of care to assure that their child is tested regardless of the attitude of the provider toward testing.

The CLPP Program has four sources of funds that are allocated to the eleven highest risk counties/communities statewide. Primary funding is from the Centers for Disease Control and Prevention and the Healthy Michigan fund, with additional funding from the Maternal and Child Health Block Grant and state General Funds. Several other areas of risk throughout the state would profit from additional funding, and nearly all local health departments bill Medicaid for enrolled children with blood lead levels at or greater than 10 ug/dL for two nursing visits to the child's home to assess the child's status and develop a plan with the family to minimize exposure, and two environmental health visits to identify lead hazards and assure that clearance has taken place.

While the numbers and types of primary health care providers are generally adequate for the need, the knowledge and skill levels of many of these providers are not adequate to address the needs of children with elevated blood lead levels. The Education and Outreach subcommittee of the CLPPP/LHRP Advisory Committee is focused on increasing the knowledge of all primary pediatric care providers, as well as education professionals and individuals in construction trades. There is also need for certified Lead Inspectors/Risk Assessors in some LHDs that have still not recognized the presence of lead hazards in their communities.

Excellent linkages have been developed between Medicaid and BFMCH, and staffs of these two entities have worked very closely together to address issues of common concern related to lead poisoning. Issues related to the elimination of missed opportunities for testing, shared data concerns and increasing testing in the Medicaid Health Plans have been a major focus for the past several years. BFMCH has also worked closely with the Medicaid Health Plans and local health departments to assist them in identifying the highest risk

areas within their jurisdictions and encouraged the Health Plans to work with LHDs to increase testing levels.

CLPPP works with a number of maternal and child health programs including WIC, Hearing Screening and the Early Hearing Detection Initiative, Early On (the early intervention program funded by federal IDEA) and the Maternal and Infant Support Services Program, among others. Linkages with the Department of Environmental Quality and the Department of Labor and Economic Growth (Day care Licensing) have been established, and in addition to members serving on the CLPPP/LHRP Advisory Committee, educational materials and consultation have been provided to these agencies. An important linkage has been enhanced with the Department of Education and joint policy has been developed to address the special learning needs of children who have been lead poisoned. The Michigan State Housing Development Authority and local housing authorities are active members of the CLPPP/LHRP Advisory Committee, as are representatives of certified Lead Contractors, a variety of advocacy groups concerned with the health and safety of children, and very importantly, the Michigan Rental Property Owners Association.

There are thirteen high-risk counties/communities where targeted testing is being strongly encouraged and where geo-mapping has been utilized to determine the most affected areas in each jurisdiction. While there are few underserved areas, there are many areas of the state where testing numbers fall below the percentage that would most effectively identify actual incidence of poisoning. The attached maps (Attachment B) identify the 13 high-risk areas and the ZIP codes where testing has been limited to date.

Since Medicaid and the Bureau of Family, Community and Child Health are in the same department, the relationship is ongoing and collaborative. The CLPPP interacts regularly with Children's Special Health Care Services and the Department of Human Services (formerly Family Independence Agency). There are also important linkages with Head Start and Early Head Start and the early intervention programs within the Department of Education, where a child between the ages of birth and three years with a blood lead level at or above 10  $\mu\text{g}/\text{dL}$  is automatically eligible for services under the category of "established conditions".

The Michigan Abstinence Program (MAP) program, with twelve local projects, provides abstinence education to youth ages 9-17 years of age (and up to 21 years of age for special education populations) to build skills to avoid risky behaviors with an emphasis on sexual activity, but can include alcohol, tobacco and other drugs, especially as they relate to sexual vulnerability. The abstinence education programming provided is research based and skill building and consists of 14 hours of direct educational contact per participant. Activities include classroom education, peer mentoring, service-learning, after school and summer programs. Services are directed at

the local level through community coalitions representative of the local community. All MAP activities center around the goal of improving the lives of youth by teaching them the skills needed to avoid sexual activity and other related risky behaviors. This public health initiative supports the belief that sexual activity and other risky behaviors threaten youth and need to be addressed aggressively by local communities.

During FY 2004 16,701 youth participated in youth programming, with 11,833 involved in 14 or more hours of direct educational contact. Fifty-five percent of youth participants were female and forty-five percent were male.

The twelve MAP funded agencies provide programs in 24 counties throughout Michigan. Programs and activities are provided through in-school classroom education and during out-of-school time in local after-school programs or through community organizations. All services are provided to participants free of charge with equal access for both males and females.

In addition to abstinence education for youth, MAP funded programs consist of three additional components: parent education; coalition development and maintenance; and, community awareness. Parent education targets the parents/guardians of the MAP participants, offering parent education on the value of open communication and parent-child connectedness. Local coalitions direct all MAP activities. Community awareness activities build local support for healthy choices for youth on issues surrounding sexuality.

The purpose of the Maternal Support Services (MSS) and Infant Support Services (ISS) program is to reduce infant mortality and morbidity. The goal of the Maternal Support Services is to alleviate social and psychosocial problems, health education deficits and transportation needs for medical appointments, and to aim for a delivery of a health baby at full term. The goal of the Infant Support Services (ISS) is to work with the parent/caregiver of a high-risk infant to help the baby to stay healthy, obtain appropriate well baby visits, medical care, immunizations and link families with community agencies. The goal of the Maternal Support Services is to help pregnant Medicaid beneficiaries most likely to experience serious health problems due to psychosocial or nutritional problems. Both MSS and ISS are intended to supplement regular prenatal/infant care and to assist the following providers in managing the beneficiary's health and well-being: physicians, certified nurse-midwives, pediatric nurse practitioners, and family nurse practitioners. There are currently 79 MSS and or ISS providers in Michigan, which are located in health departments, hospitals or community-based organizations. In 2001 the MSS program served 10,668 Medicaid pregnant women and the ISS program served 7783 infants. The Michigan Department of Community Health (MDCH) is in the process of redesigning the MSS/ISS program to the Maternal and Infant Health (MIH) program.

There will be a three-year phase in of the new MIH program beginning in October 2005.

Local health departments (LHDs) serve as a community resource to assist families in accessing needed services for children with special health care needs, both from CSHCS and other local agencies. LHD CSHCS professionals are encouraged to work closely with their MCH colleagues and with other agencies to identify community service needs from the perspective of children with special health needs and their families. These local collaborative efforts are supported by the state-level approach to community needs assessment and are reflected in efforts to remove artificial, categorical barriers to services. Local efforts are focused on the earliest intervention possible to prevent, cure or minimize the impact of handicapping conditions on children. In addition to program representation and casefinding, the LHD system helps families obtain program information and services. The LHD offers a Family Service Needs Summary when the family requests assistance in understanding the CSHCS program and other services available in their communities. During the service needs summary, LHD professionals help to identify the needs of all family members. Service coordination can then be provided if the family wants further help in developing self-advocacy skills, problem-solving, or in obtaining services.

The Parent Participation Program (PPP) has three major areas of responsibility: 1) development of a statewide, community-based network of parent-to-parent support, 2) provision of parental input to CSHCS administration regarding programs and policies, and 3) facilitation of timely responses to families in need. As a core component of the CSHCS organization, the program is headed by a parent of a child with special health needs. The program is unique in that it is inclusive of all families of children with special health care needs, whether or not they are enrolled in CSHCS. The Family Phone Line is operated through PPP. CSHCS also administers the Children's Special Needs (CSN) Fund. The Fund was created in 1944 with a large bequest of Dow Chemical stock by Dr. and Mrs. James Pardee. The Fund provides services and equipment to children with special health care needs that no other resource (including state or federal programs) provides.

iii. Population-Based Services

The Michigan Newborn Screening Program provides screening for all Michigan newborns and, through cost-sharing agreements with the University of Michigan and Wayne State University Medical Schools, provides diagnostic and medical management services for all newborns diagnosed with an endocrine, metabolic or hemoglobin disorder. Statewide genetic counseling services are provided through agreements with major medical centers in Detroit, Ann Arbor and Grand Rapids. The Newborn Screening Program is (or is in the process of) establishing service delivery and/or data links with the

following MDCH programs: CSHCS, WIC, Immunization, Vital Statistics, Epidemiology Services.

Michigan has dramatically increased the capacity for newborn hearing screening. As of March 2004, Michigan has achieved 100% voluntary hospital participation for universal newborn hearing screening with all of the 99 birthing hospitals providing services. Population screening rates have increased from 7% (~9,000) in 1997 to over 90% (~123,000) in 2002. Although screening rates have increased, the rate for referral for follow-up on failed hearing screens have remained stable since 1999 at roughly 3% (acceptable range). Michigan has increased the capacity for follow-up tracking and surveillance. From 1997 to 2003, Michigan EHDI (Early Hearing Detection and Intervention Program) had only the capacity for “active” follow-up actions for infants with bilateral failed hearing screens. With the development and implementation of the new EHDI database system, Michigan EHDI now provides “active: follow-up actions for unilateral failed hearing screens, bilateral failed hearing screens, no hearing screens reported, and incomplete hearing screens received. In May of 2005, the first quarterly tracking results for follow-up indicates a 61% follow-up rate on bilateral failed screens, 63% follow-up rate on unilateral failed screens, 49% follow-up rate on incomplete hearing screens. Active follow-up includes the generation and faxing of providers letters based on database timeout follow-up action trees. The EHDI program provides direct support and communication to providers (hospitals, primary care providers, designated hospital rescreen sites, pediatric audiological diagnostic sites, county public health offices, and Part C county coordinators. The Michigan EHDI program provides resources, consultants and training to various maternal/infant organizations, programs and agencies on statewide bases.

The Sudden Infant Death Program has modified its goal to prevent SIDS to reducing the risk of any sudden unexpected death, especially during sleep. Improvement in the number and quality of death scene investigations, in-home interviews with caregivers, and data collecting activities are providing better information about infant deaths. Many infant deaths that would have been called SIDS a decade ago are now labeled unsafe sleeping conditions. Although use of standard autopsy and death scene investigation protocols has increased, the criteria used to diagnose SIDS and sudden unexpected infant death is still inconsistent around the state.

In 2000, Child Death Review teams in Michigan reviewed 76 SIDS deaths. Though complete investigation of the death scene was done in a minority of the cases, some common risk factors were found. Only one infant was found sleeping on its back, alone and in a crib. Thirty percent of the infants were sharing a sleep surface with other children or adults. Six of the deaths occurred in a daycare setting. Second-hand smoke was a factor in 33% of the deaths and 26% had mothers who smoked during pregnancy (Michigan Child Death State

Advisory Team, *Child Deaths in Michigan: Third Annual Report*, 2002).

In the summer of 2004, the MDCH and Family Independence Agency convened a broadly representative group to develop a statewide, consistent, comprehensive message and strategy to inform families and caregivers about unsafe sleep practices. The Infant Safe Sleep Work Group issued its report in December 2004 with recommendations for data collection, death scene investigation and messages on safe sleep environment targeted specifically to child care providers, health care professionals and the public.

The goal of the program is that EVERY BABY IS PLACED TO SLEEP IN A SAFE ENVIRONMENT! A safe sleep environment for an infant means:

- An infant should be placed to sleep on his/her back.
- An infant should sleep in a safety-approved crib with a firm mattress and a tightly fitted sheet.
- Waterbeds, sofas, soft mattress or other soft surfaces are not safe for infant sleep.
- No soft materials or loose bedding in an infant sleep environment.
- Adult beds have an additional risk of entrapment and are not safe for infants.
- Soft materials or objects should not be placed under a sleeping infant.
- Bed-sharing may be hazardous for infants. Adults and children should avoid bed-sharing with infants.
- Use sleep clothing rather than blankets to keep infants warm.
- Keep babies face uncovered during sleep.
- Do not overheat the infant.
- Do not use sleep position devices.
- Babies should sleep in a smoke-free environment.

The program continues to monitor the incidence of SIDS, but since the number has markedly declined to 35 deaths in 2003, there is interest in further study of causes of infant death to better classify the current diagnostic categories. Bereavement services are limited by the allocation of resources, but continue to offer important support for families and a vehicle to reduce the risk of future infant deaths.

Hearing and Vision: Between 1.5 and 1.75 million children in public, private and charter schools, regular and special education and day care centers are screened each year by more than 300 local health department technicians, trained and monitored by staff of the Division of Family and Community Health within the Bureau of Family, Maternal and Child Health. Some screening also occurs in the early



intervention program, Early On, funded by the federal Department of Education.

All staff that provide these services at the local health department level receive two-to-three-week trainings by specialty-certified state level consultants. A cadre of contractual consultants with specialized training in either hearing or vision assist the state level consultants in providing day-long visits to each technician once every three years to assure that their practice continues to follow state standards. The state level consultants also serve as members of the accreditation team that monitors practice standards in each local health department on a three-year rotating basis, cites any deviation from standards that require compliance plans to be developed and assists the local health department in moving back into compliance.

The state level consultants have regular, ongoing contact with both local health department technicians and Hearing and Vision Coordinators through newsletters, yearly regional updates and consultation to address any issues or problems that arise. Both programs utilize the expertise of physician and associated groups to assure the appropriateness of the screening batteries, and seek recommendations from professional associations for any changes/modifications of the programs.

Services are available statewide in the settings noted above, and have been provided through local public health departments for more than 60 years. Services provided are based on law and rule that require that local health departments provide hearing and vision screening free of charge to parents. Screenings are currently provided in the schools and day care settings, but there is no requirement for them to be provided other than in the local health department. For FY 2006, the funding to local health departments that supports a significant portion of this widespread screening has been proposed for elimination, and a number of local health departments have already begun to eliminate technician positions and will only provide screening in local health department clinics as required by law.

The Hearing and Vision programs collaborate with Early On, the Early Hearing Detection Initiative, the Childhood Lead Poisoning Prevention Program, Head Start and Early Head Start and a variety of other programs that provide services to children. They also collaborate with the Children's Special Health Care Services Program (CSHCS) to assure that children identified have a source of additional evaluation and services available through CSHCS.

Comprehensive School Health Education in Michigan is guided by a broad-based coalition of four state agencies and numerous professional organizations, voluntary agencies, universities and associations focused on health and safety education. The Michigan Department of Community Health funds 25 regional health coordinators at sites throughout the state to coordinate school health

education. These coordinating sites provide health-related professional development, resources and technical assistance to all public school districts, charter schools as well as nonpublic schools throughout Michigan. Coordinating sites maintain vital links between the state and each local school and community. Some of the many services provided through these regional sites are as follows:

- Coordination of school health efforts within the assigned region
- Professional development for school staff on a wide variety of health related issues
- Training for school personnel in HIV and Sex Education certification
- Technical assistance to schools on health related programs and topics
- Medicaid outreach activities for local schools and communities
- Health curriculum resources and materials
- Working with state and local agencies and schools for coordinated school health initiatives
- Training and local support to schools on compliance with sex education legislation enacted in June of 2004. Districts are relying heavily on Coordinators for support as they implement these new laws.
- Coordination with Safe and Drug Free Schools programs

The *Michigan Model for Comprehensive School Health*, our state's model health curriculum, is implemented extensively throughout the state of Michigan. The 25 School Health Coordinators provide training and implementation support. The *Michigan Model* is the primary health curriculum used in kindergarten through high school. During FY 2003 nearly one million students received health education through the *Michigan Model*. The curriculum provides a research-based approach to health education. *Michigan Model* lessons address vital health topics, such as healthy eating, physical activity, personal health practices, social and emotional health, violence prevention and alcohol, tobacco and other drug and violence prevention. The U.S. Department of Education's Panel of Safe and Drug-Free Schools has named the *Michigan Model* a "promising program" for drug and violence prevention.

#### iv. Infrastructure-Building Services

The PRAMS survey was developed in 1987 through the cooperative effort of the Centers for Disease Control and Prevention (CDC), the District of Columbia, and the state of Indiana, Maine, Michigan, Oklahoma, and West Virginia. Michigan has continually been conducting the PRAMS survey since 1987. The purpose of PRAMS is to supplement data from vital records for planning and assessing perinatal health programs on a state level. Findings from analysis of PRAMS data have been used to enhance Michigan's understanding of maternal behaviors and experiences and their relationship with

adverse pregnancy outcomes. Thus, these data can be used for the development, surveillance, and assessment of programs and policies that are designed to reduce adverse pregnancy outcomes. PRAMS generates statewide estimates of important perinatal health indicators among women delivering a live infant. PRAMS staff collect data through a mailed survey with follow-up of non-respondents by telephone.

Michigan resident mothers who deliver in Michigan are eligible for the PRAMS survey. The PRAMS Stratified Sampling involves two variables: the Geographic Area of Residence in the State of Michigan, and the Birth Weight of the baby born to a resident mother. This design provides for desired precision (detecting a 5% difference in proportion with 95% confidence) among the Low Birthweight and Normal Birthweight strata (aggregated across Geographic Area) and among each of the three Geographic Area strata (aggregated across birthweight). It does not allow for desired precision all six combined strata groupings, however.

PRAMS provides surveillance data on unintended pregnancies, initiation of prenatal care, and information on prenatal, postpartum, and early infancy care and behaviors.

The Fetal & Infant Mortality Review (FIMR) Program has two goals. The first is to describe significant social, economic, cultural, safety, health and systems factors that contribute to mortality. The second is to design and implement community-based action plans founded on the information obtained from the reviews.

MDCH staff provides program direction. Statewide technical assistance to the local project review process is provided through a subcontract with Michigan Public Health Institute. A network of representatives from each local review team meets monthly to share information and collaborate on universal data forms.

The Michigan March of Dimes and Tomorrow's Child (Michigan SIDS) continue to be important partners in advising the program on relevant topics for education, how to do public education, how to organize local coalitions, and how to find funding sources for local and state level projects.

There are 14 active FIMR teams in 15 Michigan counties, establishing a presence in the communities that make up 70% of Michigan's infant mortality. Data from each local team is entered into a state level data base where information can be aggregated to help describe issues of health care access and service delivery to be addressed in the interest of reducing poor pregnancy outcomes.

The goals of the Fetal Alcohol Spectrum Disorders (FASD) Program are: 1) to reduce the number of children born in Michigan with FAS, 2)

to provide timely diagnosis, and 3) to assist those that are diagnosed with needed support services.

The program has three funded components: 1) multidisciplinary teams called Centers of Excellence that diagnose children and provide initial care planning; 2) community projects that provide community outreach and education; and, 3) training and consultation to assist collaborative agencies in their work. Services needed for FAS include early intervention, WIC, adoption and foster care, substance abuse treatment, Infant Support Services, child protective services, school special education, mental health and juvenile justice.

There are 12 community outreach education projects. All community projects convene advisory councils and do community awareness and prevention education. Additionally each community project will do at least one of the following three activities:

1. Outreach leading to prescreening, screening and referral for diagnosis,
2. Facilitate support services for diagnosed children and their families, and
3. Conduct ongoing support groups for affected families.

The six Centers of Excellence are located in Ann Arbor, Detroit, Flint, Kalamazoo, Grand Rapids and Marquette. Each center is a multidisciplinary clinic offering genetic, developmental pediatric, occupational therapy, and physical therapy. The centers accept referrals from their region of the state for diagnosis. The centers utilize diagnostic criteria developed by the University of Washington.

The target population for the prevention education is women of childbearing years. For the screening, diagnosis and support work, the primary target is children under six who may be affected with FAS. These children are primarily identified in community programs and services, which identify poor growth or behavioral concerns. Older children may be identified in schools or by parents/caretakers due to learning disabilities or behavior problems.

The management team for this program includes coordinators from each of the six clinics, three FASD technical consultants and the state program manager. This group has begun convening representatives from state agencies who provide services to children with FASD and parent advisors to study the state service delivery system. The outcome of this effort will hopefully be a more coordinated system of care for FASD.

MDCH also now manages a FASD Prevention project in Detroit that targets women prior to pregnancy with information to help change behavior that makes them at-risk for an alcohol exposed pregnancy. The project also is piloting a surveillance methodology to help determine the incidence of FAS in Wayne County. The project is funded through a CDC grant that should last through FY2008.

Michigan Department of Community Health's capacity to address the problem of maternal mortality reflects combined resources from the Bureau of Epidemiology and the Bureau of Families, Maternal & Child Health. The focus of this combined effort includes 1) assuring accurate case identification and analysis of maternal mortality data, 2) assuring reviews of all cases of maternal death by medical and interdisciplinary expertise to identify direct and contributing cause for the deaths, and 3), enabling the medical and interdisciplinary experts to develop prevention recommendations and implementation actions to address identified causes.

Michigan Maternal Mortality Surveillance, one of the oldest in the nation, has a well defined process, beginning with case ascertainment method, case summaries and reviews based on the accessible documentation, followed by recommendations outlined by the two committees, Medical and Injury, depending on the cause of death. These recommendations are taken further to the Interdisciplinary committee that will translate them into practice. The current process for developing prevention recommendations and implementation actions will address development and use of standards of care.

Local delivery systems of care, private and public sources of prenatal care, hospital obstetrical, emergency, and inpatient medical services, as well as community services are evaluated during the case review process used by Maternal Mortality Surveillance. A thorough analysis of the findings from all of the pregnancy-associated case reviews is an important component of the entire process.

The increasing capacity of the Maternal Mortality Surveillance is based on the coordination with other groups of major providers of health and health-related services. Membership in the Medical Committee reflects obstetricians from the three medical schools and large birthing hospitals in Michigan, an obstetrician in private practice, a midwife, maternal-fetal medicine specialist and anesthesiologist from a large urban hospital, and two nurse educators. Through this committee, communication with the Committee on Perinatal Health from the Michigan State Medical Society and the American College of Obstetricians and Gynecologist is maintained. Membership in the Injury Committee reflects public health nursing services in an urban setting, domestic violence counseling, Michigan State Police and the Office of Highway Safety, a Circuit court, an urban county Prosecuting Attorney, Injury Prevention Services from Michigan Department of Community Health, and nursing and medical education in the state. The linkages enabled through these two committees are invaluable to the process of conducting reviews and identifying recommendations.

Presentation of information about maternal mortality, such as cause, location, demographics, trends, as well as recommendations based on reviews of maternal death cases have served, in the recent past, as a basis for written and oral presentations for medical communities

as well as for public health professionals. These means of informing providers will continue, assessing also the effectiveness in reaching targeted audiences. Examples of other actions under consideration include recommendations about provider education, education regarding use of valid screening protocols, assessing availability and attitudes of medical providers regarding use of community resources, and defined public education campaigns.

e. Selection of State Priority Needs

Input on the highest priority needs of the three Title V target population groups was solicited from a wide variety of stakeholders. The Bureau of Epidemiology compiled the latest statewide statistics and trends concerning maternal and child health. Other data was compiled from program sources and special project reports. The MCH Priorities Workgroup was then formed to review the comments received and available data and to develop a recommended list of the top ten priorities for MCH.

MCH staff then reviewed the recommendations from the workgroup for consistency with department priorities and comparison with other (non-Title V) initiatives. In the final list of priorities, it was decided to combine some topics recommended by the workgroup into one priority (Medical Home for CSHCS with Care Coordination and Case Management, Child and Adolescent Obesity and Nutrition and Exercise, Unintended and Teen Pregnancy, Suicide and Violence into Teen Suicide Prevention). The discussion by the workgroup around data resource development was very general and resource dependent and was therefore left to be addressed outside the Title V program. Infant mortality and lead poisoning prevention were added to the list of priorities reflecting the department's continuing focus on these issues.

Priorities by Pyramid Level and MCH Population Group

Priority	Pyramid Level	MCH Population Group
Establish a system to better identify, screen and refer for maternal depression	Infrastructure-building	Pregnant Women, Mothers and Infants
Increase the rate and duration of breastfeeding	Enabling Services	Pregnant Women, Mothers and Infants
Reduce the percentage of unintended and teen pregnancies	Direct, Enabling and Infrastructure-building Services	Pregnant Women, Mothers and Infants; Children
Reduce the percentage of preterm births and births with low birthweight	Direct and Infrastructure-building Services	Pregnant Women, Mothers and Infants
Establish a medical home and increase care coordination for	Enabling and Infrastructure-	CSHCN

children with special health care needs	building Services	
Increase the number of CSHCS-enrolled youth who have appropriate adult health care providers	Enabling Services	CSHCN
Reduce the proportion of children and adolescents who are obese	Enabling Services	Children
Reduce the incidence of teen suicide	Enabling and Infrastructure-building Services	Children
Increase the testing rate of low-income children for lead poisoning	Direct Services	Children
Reduce the racial disparity between black and white infant mortality and between Native American and white infant mortality	Direct, Enabling and Infrastructure-building Services	Pregnant Women, Mothers and Infants
Reduce the number of maternal deaths in the black population	Infrastructure-building Services	Pregnant Women, Mothers and Infants

### C. Needs Assessment Summary

Michigan has designated 11 priorities. Seven are repeated from the 2001 needs assessment.

*Establish a system to better identify, screen and refer for maternal depression.* New for 2006.

*Increase the rate and duration of breastfeeding.* This priority is continued from 2001 with specific focus on duration of breastfeeding.

*Reduce the percentage of unintended and teen pregnancies.* This priority is continued from 2001.

*Reduce the percentage of preterm births and births with low birth weight.* This priority is continued from 2001.

*Establish a medical home and increase care coordination for children with special health care needs.* This priority is continued from 2001.

*Increase the number of CSHCS-enrolled youth who have appropriate adult health care providers.* New for 2006

*Reduce the proportion of children and adolescents who are obese.* New for 2006

*Reduce the incidence of teen suicide.* New for 2006

*Increase the testing rate of low-income children for lead poisoning.* Continued from 2001

*Reduce the racial disparity between black and white infant mortality and between Native American and white infant mortality.* This priority continues from the last needs assessment with the addition of specific attention to the gap in infant mortality rates between the white and Native American population.

*Reduce the number of maternal deaths in the black population.* This priority is continued from the 2001 needs assessment but is not reported as one of the ten top priorities. Although the Needs Assessment Workgroup did not rank this as one of the top priorities, the Department continues to review maternal deaths for possible policy and programmatic strategies.

The selection of Michigan's Title V priority needs for 2006-2011 was based on input from a variety of stakeholders and analysis of the available data. Training in MCH needs assessment methods was conducted for local health department staff. Comments on maternal and child health priorities were invited from parent groups, advocacy organizations, advisory committees, providers, and other Department and state program staff. Data was compiled by MCH epidemiology staff and presented to a group of key stakeholders who reviewed the data analysis and comments provided by the aforementioned groups. The stakeholders workgroup then recommended ten priorities to the Title V Director. These recommendations were then adopted with a few revisions based on current Department priorities.

The needs assessment process was essentially the same as in 2001. Training of local health department staff was added to assist them in determining local priorities and provide input to state-level priorities.

As in the past, partners in the needs assessment process included representatives from other programs within the Department of Community Health, other federally funded programs such as WIC, other state departments, local health departments and other providers, advocacy organizations and parents.

Michigan continues to have one of the highest infant mortality rates in the country. The incidence of infant deaths as well as the prevalence of low birth weight fluctuated over the last five years but have remained high. Unintended pregnancy and preterm birth are contributing factors to infant mortality and continue to be a concern. The ratio of black infant mortality rate to white infant mortality rate averages about 3.0 and the gap between Native American and white infant mortality has grown over the past five years. Breastfeeding rates continue to be low especially among African American women.

While progress has been made in testing of children for lead poisoning, there is still room for improvement. Recent legislation concerning testing and reporting along with penalties for landlords and the creation of a lead-safe housing registry should help to increase testing rates for all children.



Although data on overweight status is not available for young children, the rate for adolescents shows an increasing problem in Michigan. Based on samples from the Youth Risk Behavior Survey, Michigan children are similar to children across the nation in terms of patterns of increasing weight.

The suicide death rate for 15-19 year olds has fluctuated over the past five years from 6.7 to 8.8. The 2001 Michigan YRBS states that 18% of Michigan's 9<sup>th</sup>-12<sup>th</sup> graders seriously considered attempting suicide some time in the 12 months preceding the survey. One of ten students actually attempted suicide during that time.

Although there is very limited data for analysis, the percent of children with special health care needs whose care is coordinated within a medical home appears low and much more effort is needed to assist CSHCN youth transitioning out of the program to find adult health care providers and other support services.

#### D. Health Status Indicators

Data from our Vital Records indicates an increase over the last five years in low birth weight overall while the rate for singleton births has remained relatively stable. The very low birth weight rate has remained about the same both overall and for singleton births. Some of the factors contributing to the increase in low birth weight births are an increase in multiple births, births to women over 35 years of age and maternal health status prior to pregnancy.

The death rate due to unintentional injuries among children 14 and younger declined by 22% from 2000 to 2004 and the death rate due to motor vehicle accidents for the same age group and period of time declined by 34%. Unintentional injuries accounted for 15% of all causes of death for children under 14 years of age. 35% of unintentional injury deaths were due to motor vehicle crashes.

Chlamydia is the most frequently reported communicable disease in Michigan. From 2000 to 2004, rates for women (provisional) increased by 48% for those 15 through 19 years of age and by 68% for those 20 through 44 years of age. 54% of reported cases in 2002 were in Southeast Michigan and 35% were in Detroit. Rates were much higher for blacks than for whites. This is due in part to more widespread testing and better reporting.

Of the 128,259 live births in 2004, 77.5% were to white mothers, 17.5% to black mothers, .5% to Native American mothers and 6% to Hispanic mothers. Of the deaths to children 0-24 years of age, 62% were white, 33% were black, .5% were Native American and 4% were Hispanic. 41% of deaths among this age group (0-24 years) were among infants and 43.5% were among children 15-24 years of age.

#### E. Outcome Measures – Federal and State

Data for 2004 for infant mortality, neonatal mortality, perinatal mortality and postneonatal mortality are very preliminary and are based on incomplete death

files at this point in time. The provisional data shows a significant decline in the overall infant mortality rate from 8.5 in 2003 to 7.6 in 2004. Both black infant mortality (from 17.5 in 2003 to 17.2 in 2004) and white infant mortality (from 6.7 in 2003 to 5.2 in 2004) declined but the white infant mortality rate was significantly lower resulting in an increase in the gap between white and black infant mortality. The neonatal, perinatal and postneonatal mortality rates also declined from 2003 to 2004.

These outcome measures relate to our state priorities for reducing the disparity between black and white infant mortality and reducing the percent of preterm births and births with low birth weight and to the following performance measures:

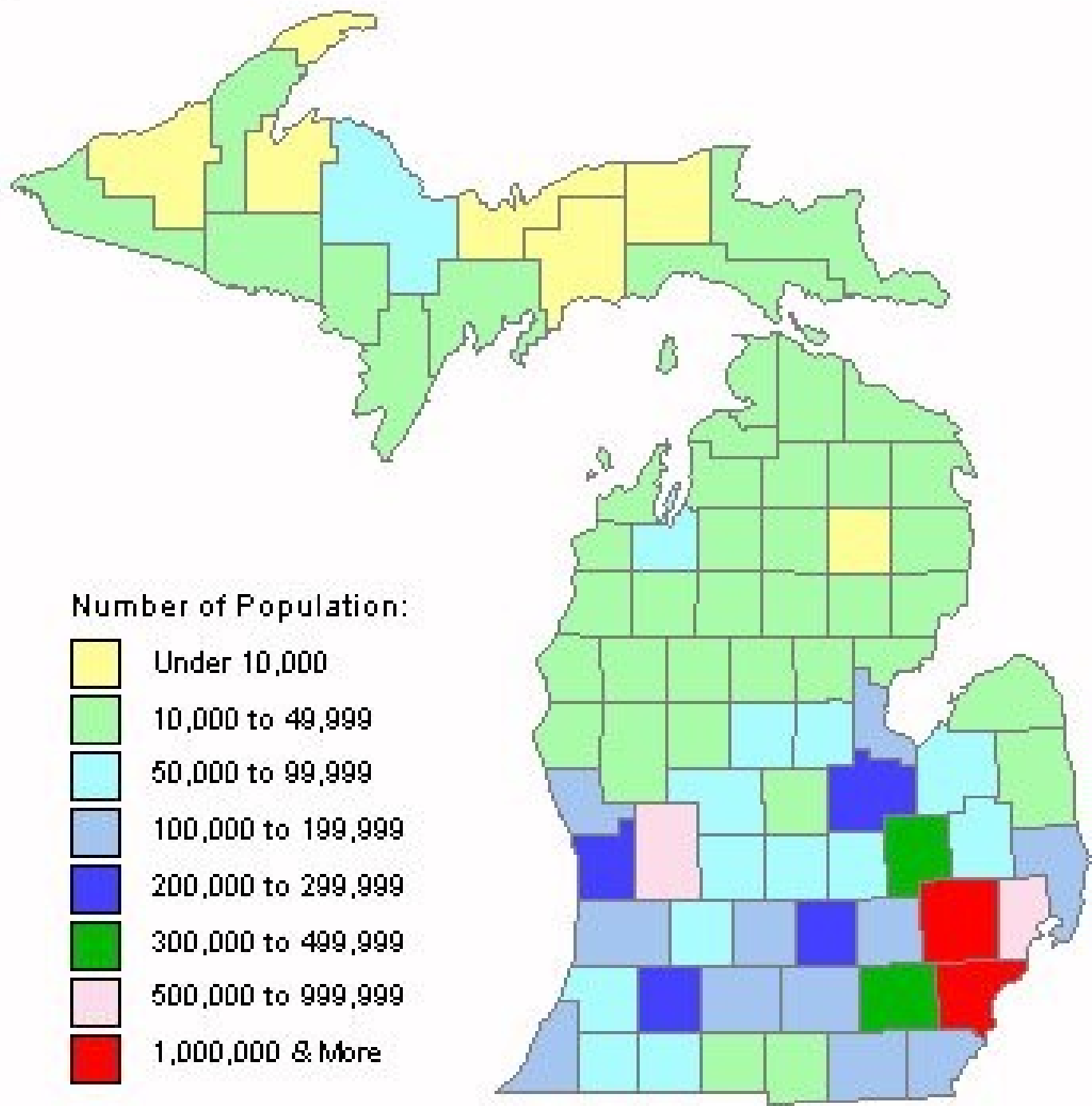
- NPM #1 Newborn Screening
- NPM #8 Rate of birth for 15-17 year olds
- NPM #15 Percent of very low birth weight infants
- NPM #17 Percent of VLBW infant delivered at facilities for high-risk deliveries and neonates
- NPM #18 First trimester prenatal care
- SPM #1 Rate of infant mortality
- SPM #2 Maternal mortality ratio in black women
- SPM #3 Percent of low birth weight births
- SPM #4 Percent of preterm births
- SPM #5 Unintended pregnancy

Again, the data for 2004 is provisional, but indicates that we have exceeded our targets for infant mortality overall and preterm births. This is in spite of a slight increase in the percent of low birth weight births from 2003 to 2004 and a decline in percent of infants born to women who received prenatal care beginning in the first trimester. Thus, infant mortality, racial disparity between black and white infant mortality, preterm births and low birth weight births will continue to be tracked over the next five years. Analysis of the Perinatal Periods of Risk Model and Fetal Infant Mortality Review indicates that maternal health status is a significant factor contributing to infant mortality, low birth weight and preterm birth, including bacterial and viral infections, smoking and alcohol use. Interventions must be done prior to pregnancy to reduce health risks contributing to poor pregnancy outcomes. Access to early prenatal care continues to be an issue for Medicaid-eligible pregnant women.

The child death rate per 100,000 children aged 1 through 14 declined from 21.1 in 2003 to 18.5 in 2004 (provisional data). This includes a decline in deaths due to motor vehicle accidents from 4.6 in 2003 to 3.1 in 2004. Activities impacting this measure include a campaign to increase public awareness of the need for booster seat use, training of child passenger safety technicians and public seat inspection clinics to check for correct use and installation and distribution of child safety seats.

## Michigan Population by County, 2003

Statewide Total: 10,079,985



# 13 Target Communities at High Risk for Childhood Lead Poisoning



# Percentage of Children less than Six Years of Age Tested for Lead Poisoning in 2004 shown by ZIP Code

Attachment B2

